

# **EXHIBIT 1**

## **9.1 Meter Ka Band Antenna Patterns**

## Transmit Circular Patterns

Transmit circular patterns were measured in two orthogonal cuts of the AUT using a circular source. Patterns were recorded at 9,90 and 360 degree expansions for LHC and RHC polarizations at low, mid and high frequencies.

Transmit Patterns (Circular)										
	Freq (GHz)	AUT feed Pol	AUT Reflector Plane	Span	Amp Scale	Tx Pol	Tx Dia. (Ft)	Range Setup	Remarks	Orig. / Repeat
146	28.05	RHC	Az	9	80	RHC	1	Elevated	Co	112347
147	28.05	RHC	Az	90		RHC			Co	112348
148	29.05	RHC	Az	90		RHC			Co	112349
149	29.05	RHC	Az	9		RHC			Co	112352
150	29.05	RHC	Az	360		RHC			Co	112351
151	30.0	RHC	Az	9		RHC			Co	112353
152	30.0	RHC	Az	90		RHC			Co	112354
153	28.05	RHC	El	9	80	RHC	1	Elevated	Co	112369 / 112419
154	28.05	RHC	El	90		RHC			Co	112370 / 112420
155	29.05	RHC	El	90		RHC			Co	112360 / 112421
156	29.05	RHC	El	9		RHC			Co	112361
157	29.05	RHC	El	360		RHC			Co	112362 / 112423
158	30.0	RHC	El	9		RHC			Co	112363
159	30.0	RHC	El	90		RHC			Co	112365 / 112424
160	28.05	LHC	El	9	80	LHC	1	Elevated	Co	112344
161	28.05	LHC	El	90		LHC			Co	112345
162	29.05	LHC	El	90		LHC			Co	112342 / 112425
163	29.05	LHC	El	9		LHC			Co	112341
164	29.05	LHC	El	360		LHC			Co	112343 / 112426
165	30.0	LHC	El	9		LHC			Co	112338
166	30.0	LHC	El	90		LHC			Co	112340
167	28.05	LHC	Az	9	80	LHC	1	Elevated	Co	112329
168	28.05	LHC	Az	90		LHC			Co	112330
169	29.05	LHC	Az	9		LHC			Co	112331
170	29.05	LHC	Az	90		LHC			Co	112333
171	29.05	LHC	Az	360		LHC			Co	112334 / 112427
172	30.0	LHC	Az	9		LHC			Co	112335
173	30.0	LHC	Az	90		LHC			Co	112337 / 112428



112347



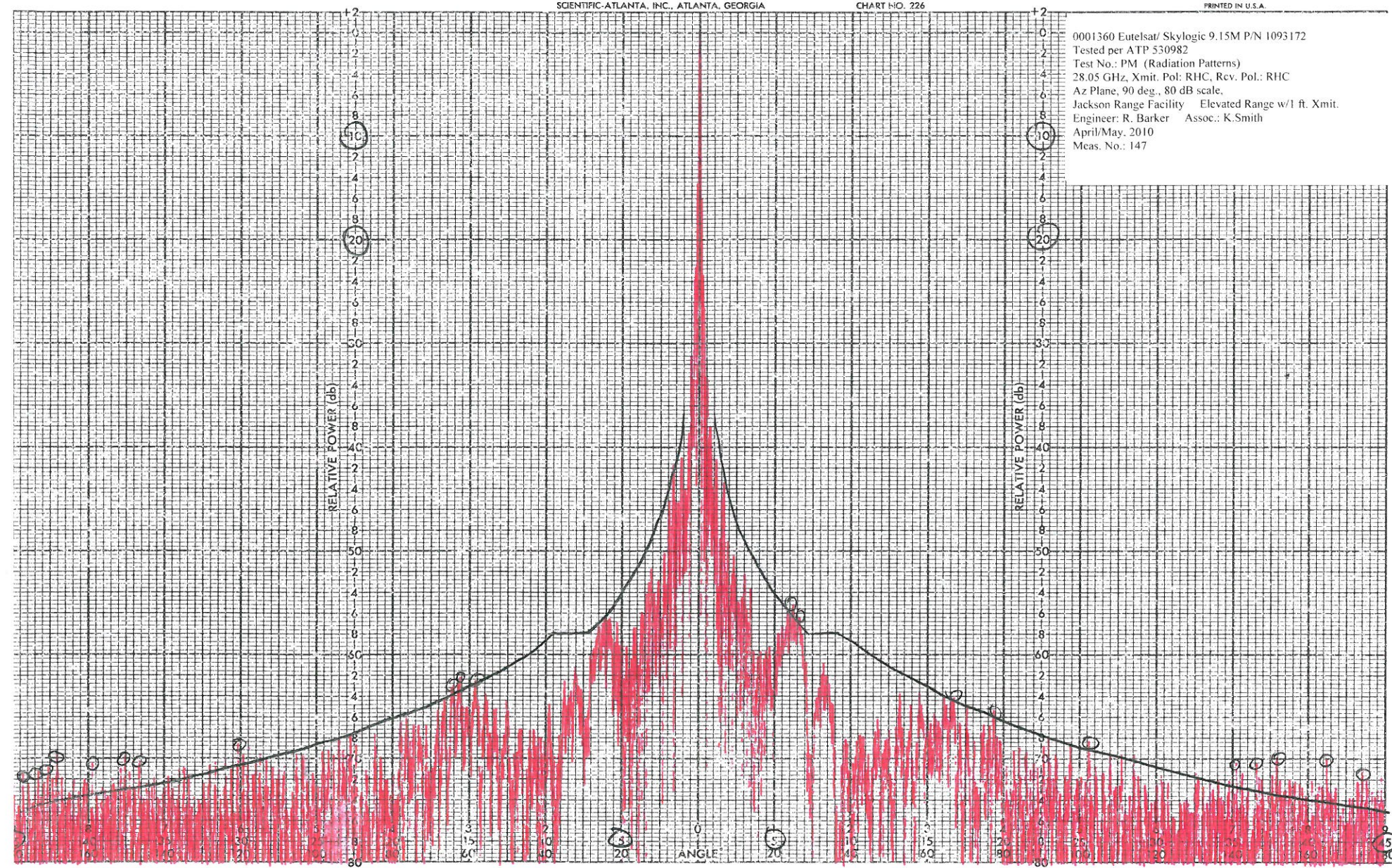


0001360 Eutelsat/ Skylogic 9.15M P/N 1093172  
Tested per ATP 530982  
Test No.: PM (Radiation Patterns)  
28.05 GHz, Xmit. Pol: RHC, Rcv. Pol.: RHC  
Az Plane, 90 deg., 80 dB scale.  
Jackson Range Facility Elevated Range w/1 ft. Xmit.  
Engineer: R. Barker Assoc.: K. Smith  
April/May, 2010  
Meas. No.: 147

112348

DATE

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REMARKS



0001360 Eutelsat/ Skylogic 9.15M P/N 1093172

Tested per ATP 530982

Test No.: PM (Radiation Patterns)

29.05 GHz, Xmit. Pol: RHC, Rev. Pol.: RHC

Az Plane, 90 deg., 80 dB scale.

Jackson Range Facility Elevated Range w/1 ft. Xmit.

Engineer: R. Barker Assoc.: K. Smith

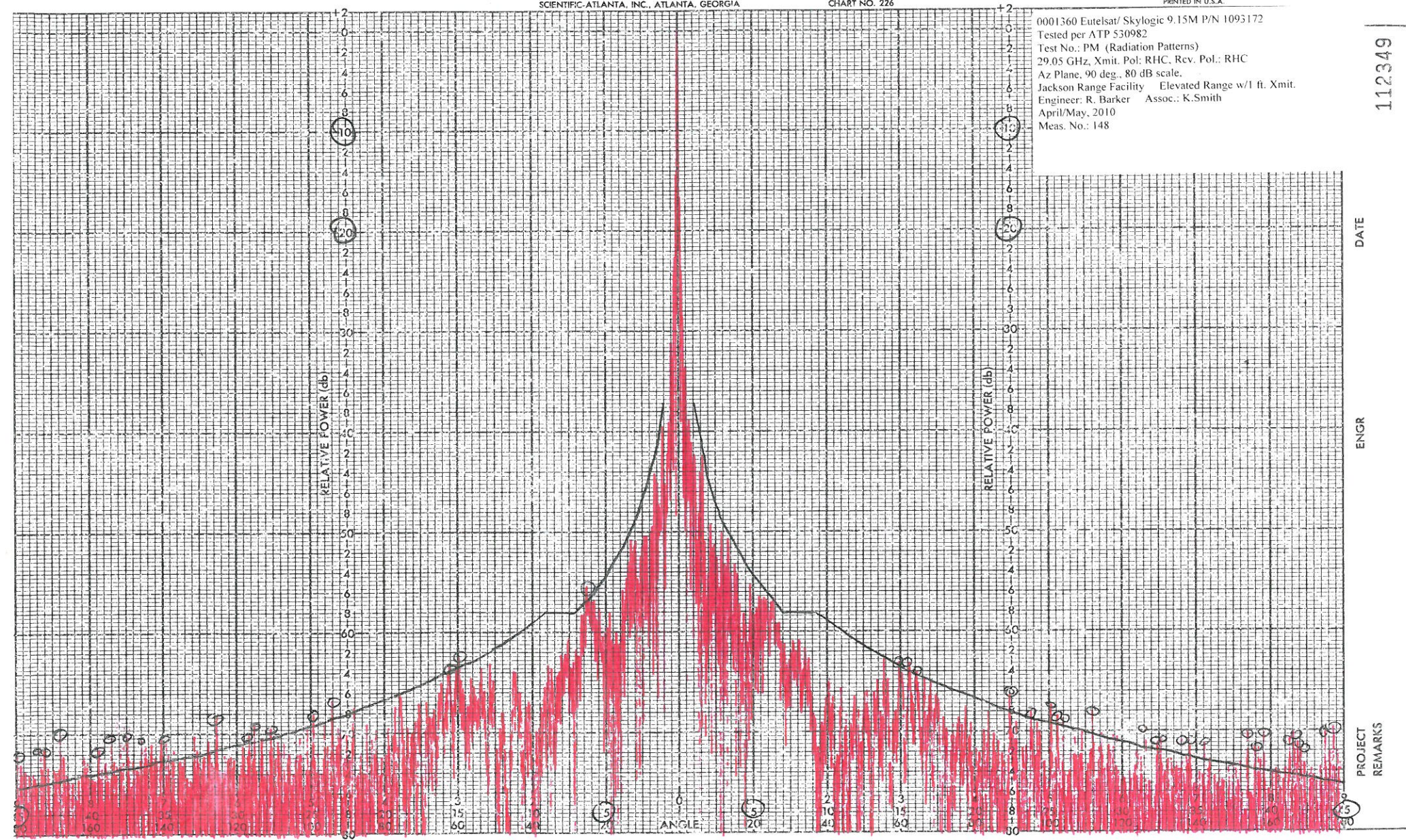
April/May, 2010

Meas. No.: 148

112349

DATE

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REMARKS

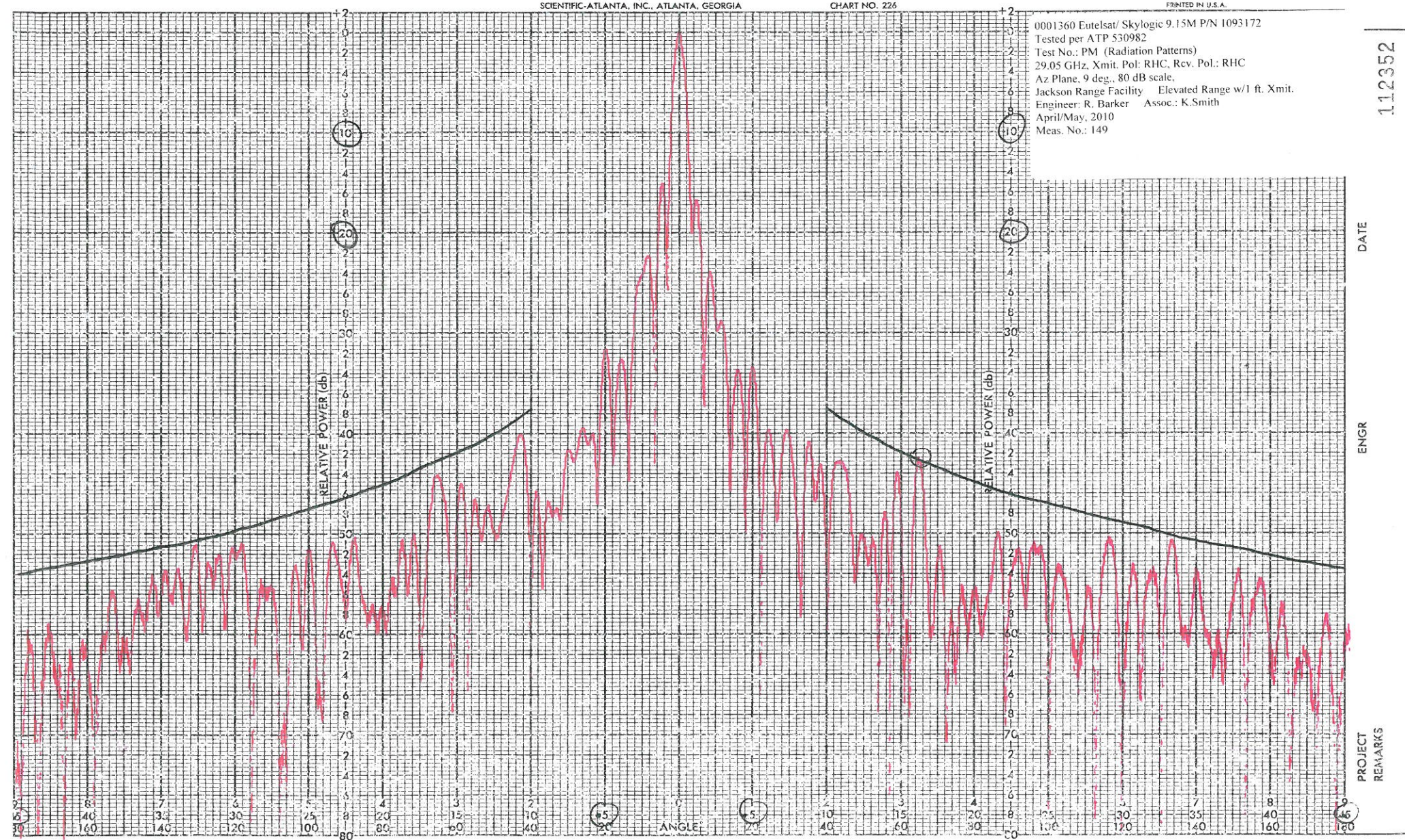


0001360 Eutelsat/ Skylogic 9.15M P/N 1093172  
Tested per ATP 530982  
Test No.: PM (Radiation Patterns)  
29.05 GHz, Xmit. Pol: RHC, Rev. Pol.: RHC  
Az Plane, 9 deg., 80 dB scale,  
Jackson Range Facility Elevated Range w/1 ft. Xmit.  
Engineer: R. Barker Assoc.: K. Smith  
April/May, 2010  
Meas. No.: 149

112352

DATE

ENGR

PROJECT  
REMARKS



0001360 Eutelsat/ Skylogic 9.15M P/N 1093172

Tested per ATP 530982

Test No.: PM (Radiation Patterns)

29.05 GHz, Xmit. Pol: RHC, Rev. Pol.: RHC

Az Plane, 360 deg., 80 dB scale.

Jackson Range Facility Elevated Range w/1 ft. Xmit.

Engineer: R. Barker Assoc.: K. Smith

April/May, 2010

Meas. No.: 150

RELATIVE POWER (dB)

RELATIVE POWER (dB)

ANGLE

DATE

ENGR

PROJECT  
REMARKS

112351



0001360 Eutelsat/ Skylogic 9.15M P/N 1093172

Tested per ATP 530982

Test No.: PM (Radiation Patterns)

30.00 GHz, Xmit. Pol: RHC, Rev. Pol.: RHC

Az Plane, 9 deg., 80 dB scale.

Jackson Range Facility Elevated Range w/1 ft. Xmit.

Engineer: R. Barker Assoc.: K. Smith

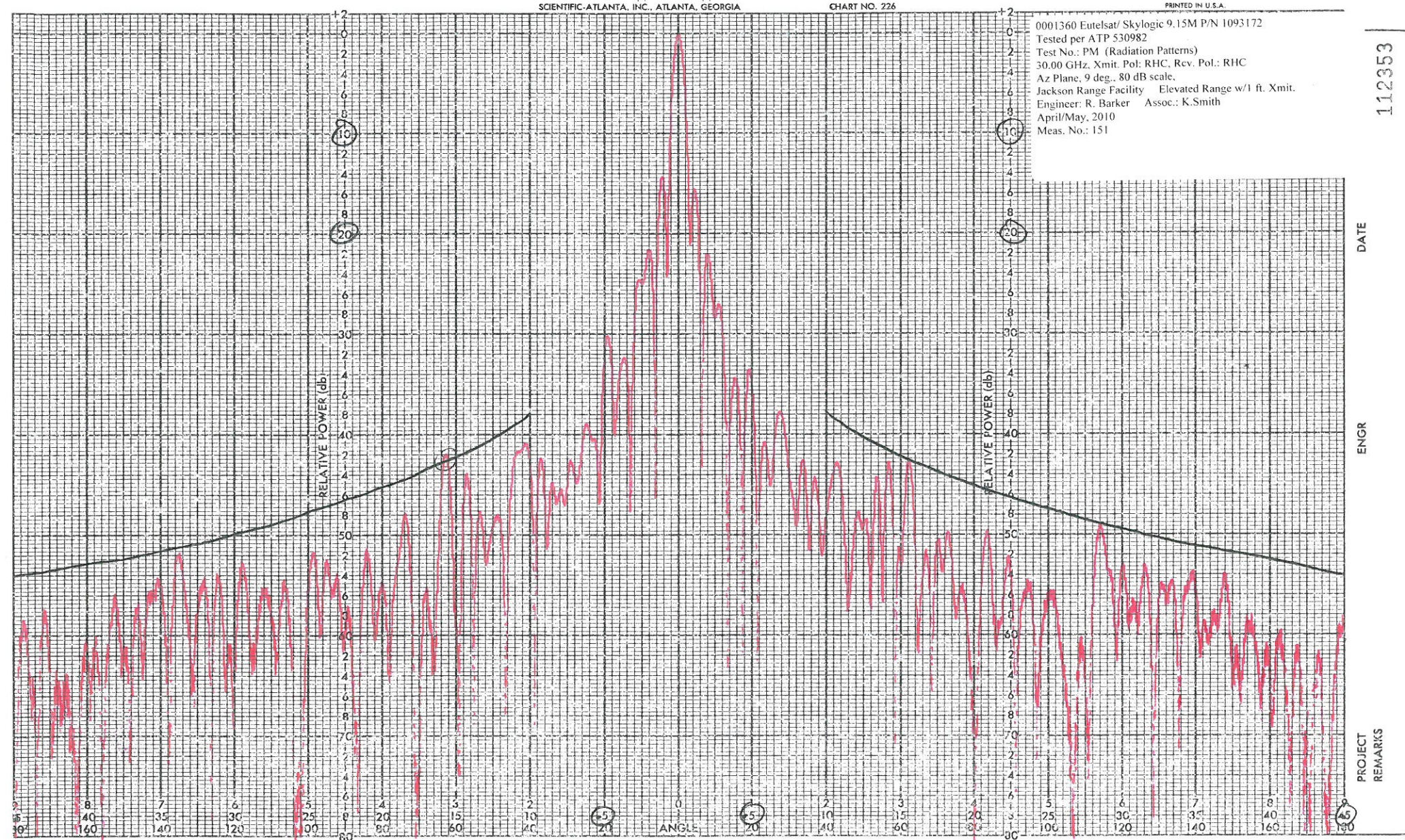
April/May, 2010

Meas. No.: 151

112353

DATE

ENGR

PROJECT  
REMARKS



0001360 Eutelsat/ Skylogic 9.15M P/N 1093172

Tested per ATP 530982

Test No.: PM (Radiation Patterns)

30.00 GHz, Xmit. Pol: RHC, Rev. Pol.: RHC

Az Plane, 90 deg., 80 dB scale.

Jackson Range Facility Elevated Range w/1 ft. Xmit.

Engineer: R. Barker Assoc.: K. Smith

April/May, 2010

Meas. No.: 152

112354

DATE

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REMARKS

RELATIVE POWER (db)

RELATIVE POWER (db)

ANGLE °

5

10

15

20

25

30

35

40

45

50

55

60

65

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75

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95

100

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930

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945

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970

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980

985

990

995

1000

1005

1010

1015

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1075

1080

1085

1090

1095

1100

1105

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1125

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1160

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1190

1195

1200

1205

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1700

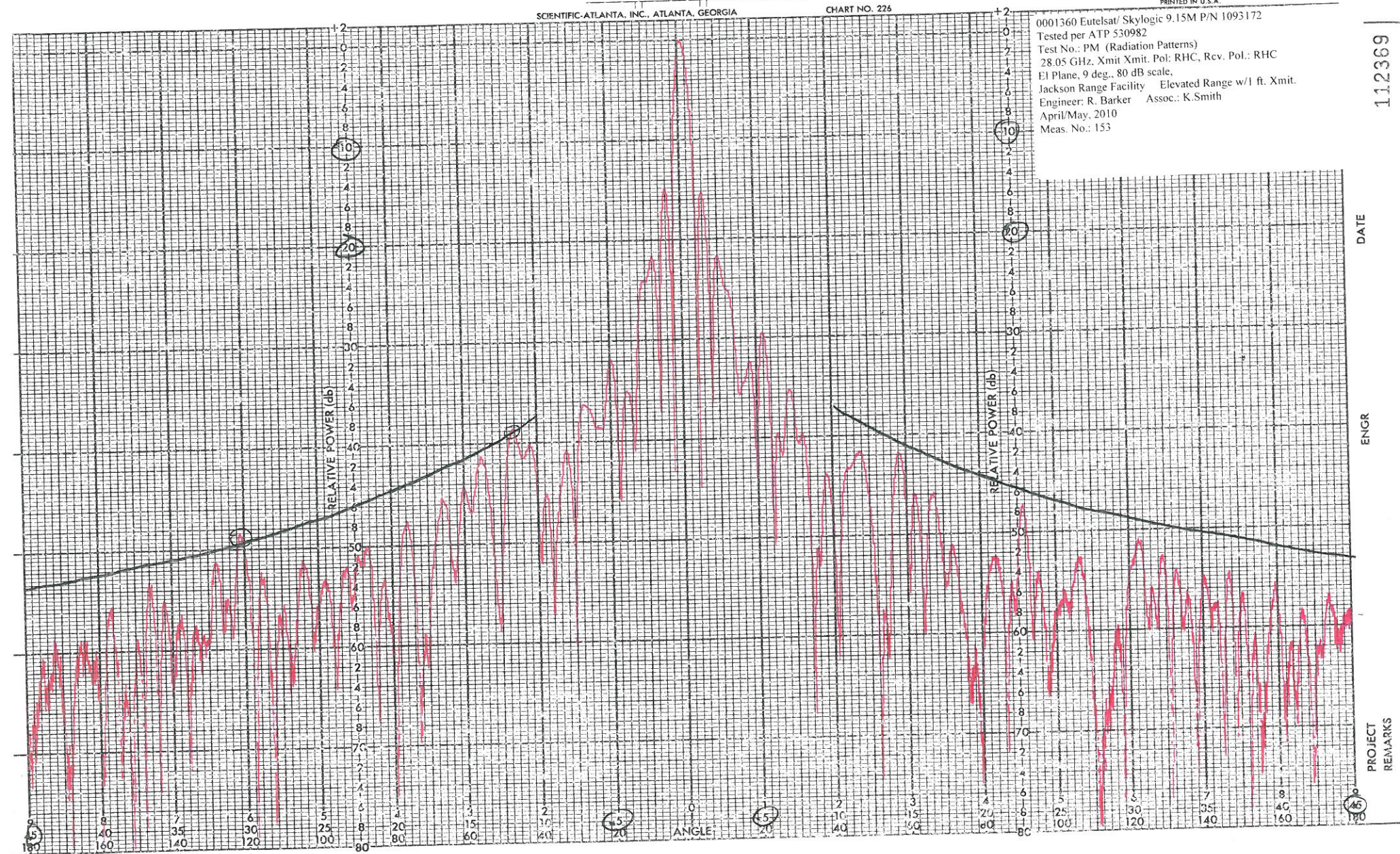


0001360 Eutelsat/ Skylogix 9.15M P/N 1093172  
Tested per ATP 530982  
Test No.: PM (Radiation Patterns)  
28.05 GHz. Xmit. Pol: RHC, Rcv. Pol.: RHC  
E1 Plane, 9 deg., 80 dB scale,  
Jackson Range Facility Elevated Range w/1 ft. Xmit.  
Engineer: R. Barker Assoc.: K. Smith  
April/May, 2010  
Meas. No.: 153

112369

DATE

ENGR

PROJECT  
REMARKS



0001360 Eutelsat/ Skylogix 9.15M P/N 1093172

Tested per ATP 530982

Test No.: PM (Radiation Patterns)

28.05 GHz, Xmit. Pol: RHC, Rev. Pol.: RHC

El Plane, 90 deg., 80 dB scale,

Jackson Range Facility Elevated Range w/1 ft. Xmit.

Engineer: R. Barker Assoc.: K. Smith

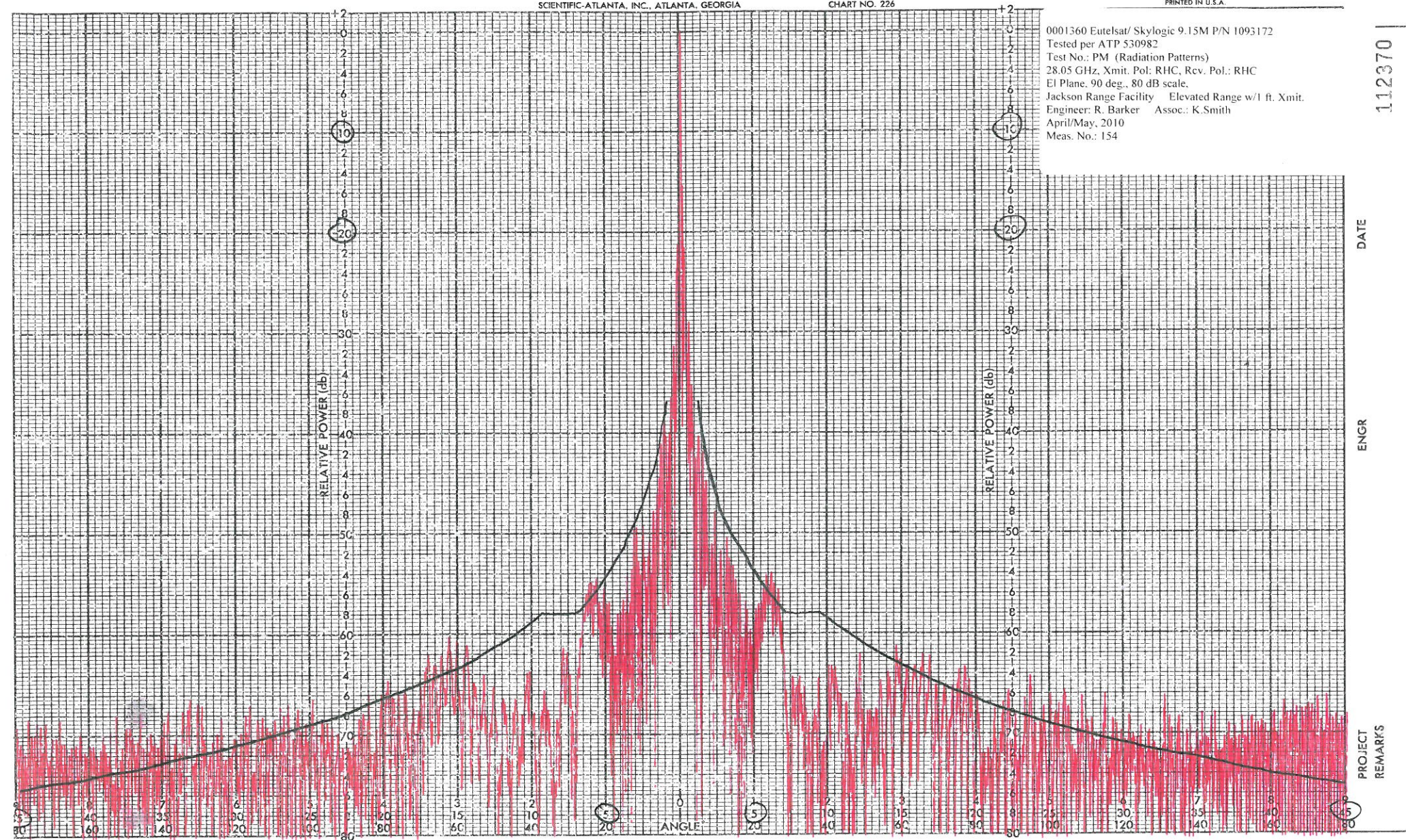
April/May, 2010

Meas. No.: 154

112370

DATE

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PROJECT  
REMARKS



0001360 Eutelsat/ Skylogix 9.15M P/N 1093172  
Tested per ATP 530982  
Test No.: PM (Radiation Patterns)  
29.05 GHz, Xmit. Pol: RHC, Rcv. Pol.: RHC  
EI Plane, 90 deg., 80 dB scale,  
Jackson Range Facility Elevated Range w/1 ft. Xmit.  
Engineer: R. Barker Assoc.: K. Smith  
April/May, 2010  
Meas. No.: 155

112360

DATE

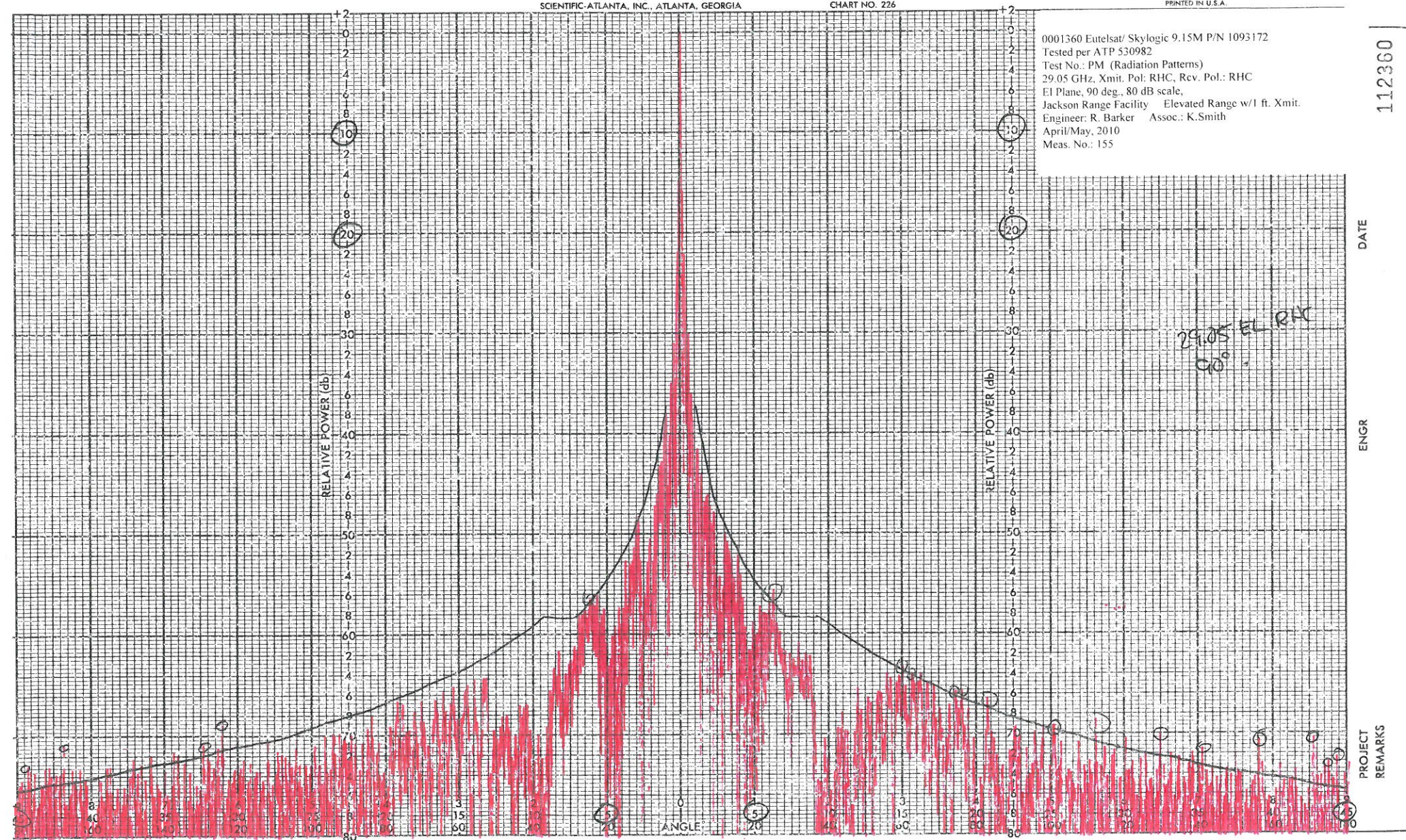
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PROJECT  
REMARKS

RELATIVE POWER (db)

RELATIVE POWER (db)

ANGLE

29.05 EL RHC  
90°



0001360 Eutelsat/ Skylogic 9.15M P/N 1093172

Tested per ATP 530982

Test No.: PM (Radiation Patterns)

29.05 GHz, Xmit. Pol: RHC, Rev. Pol: RHC

E1 Plane, 9 deg., 80 dB scale.

Jackson Range Facility Elevated Range w/1 ft. Xmit.

Engineer: R. Barker Assoc.: K. Smith

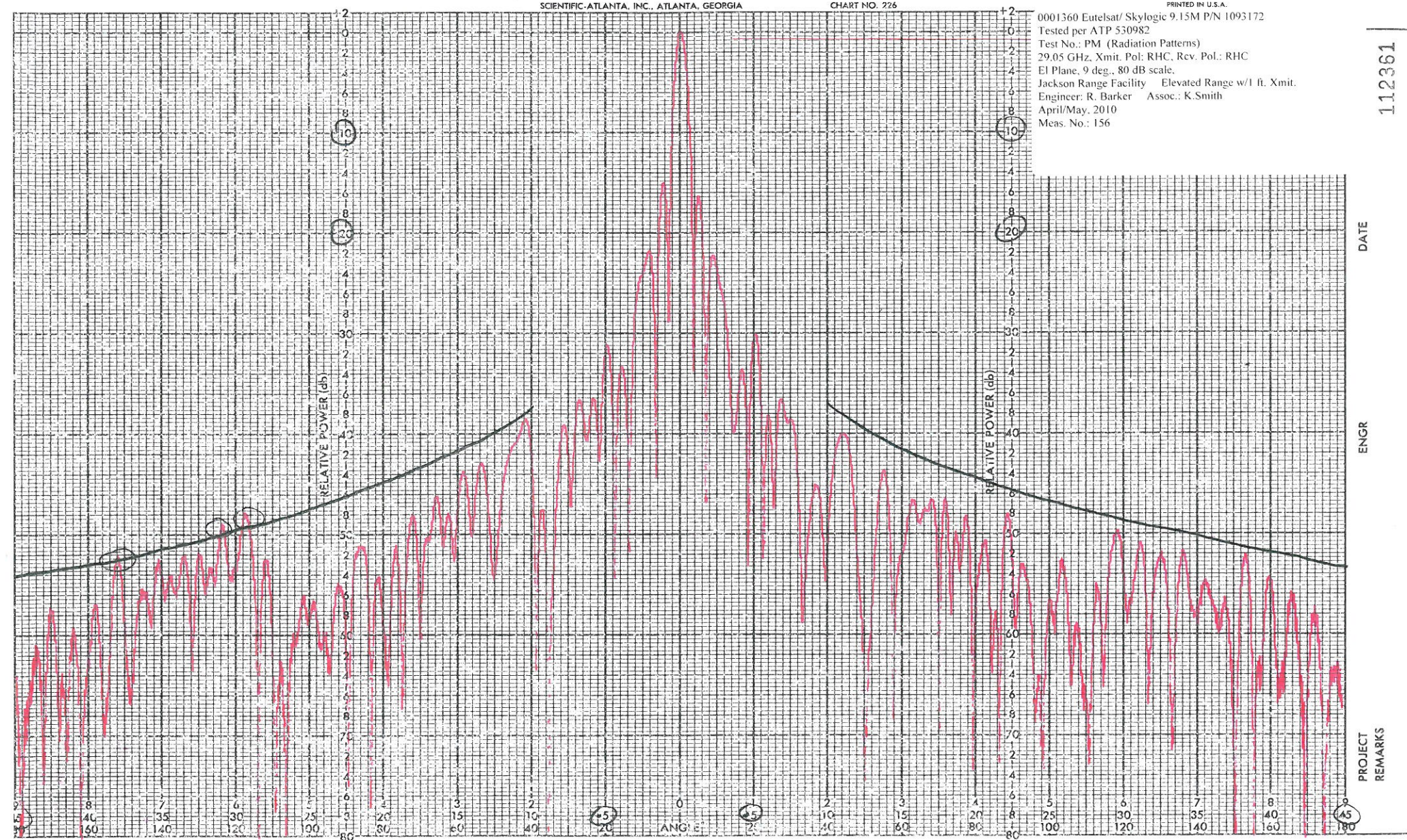
April/May, 2010

Meas. No.: 156

112361

DATE

ENGR

PROJECT  
REMARKS



0001360 Eutelsat/ Skylogic 9.15M P/N 1093172  
Tested per ATP 530982  
Test No.: PM (Radiation Patterns)  
29.05 GHz, Xmit. Pol: RHC, Rev. Pol.: RHC  
E1 Plane, 360 deg., 80 dB scale,  
Jackson Range Facility Elevated Range w/1 ft. Xmit.  
Engineer: R. Barker Assoc.: K. Smith  
April/May, 2010  
Meas. No.: 157

112362

DATE

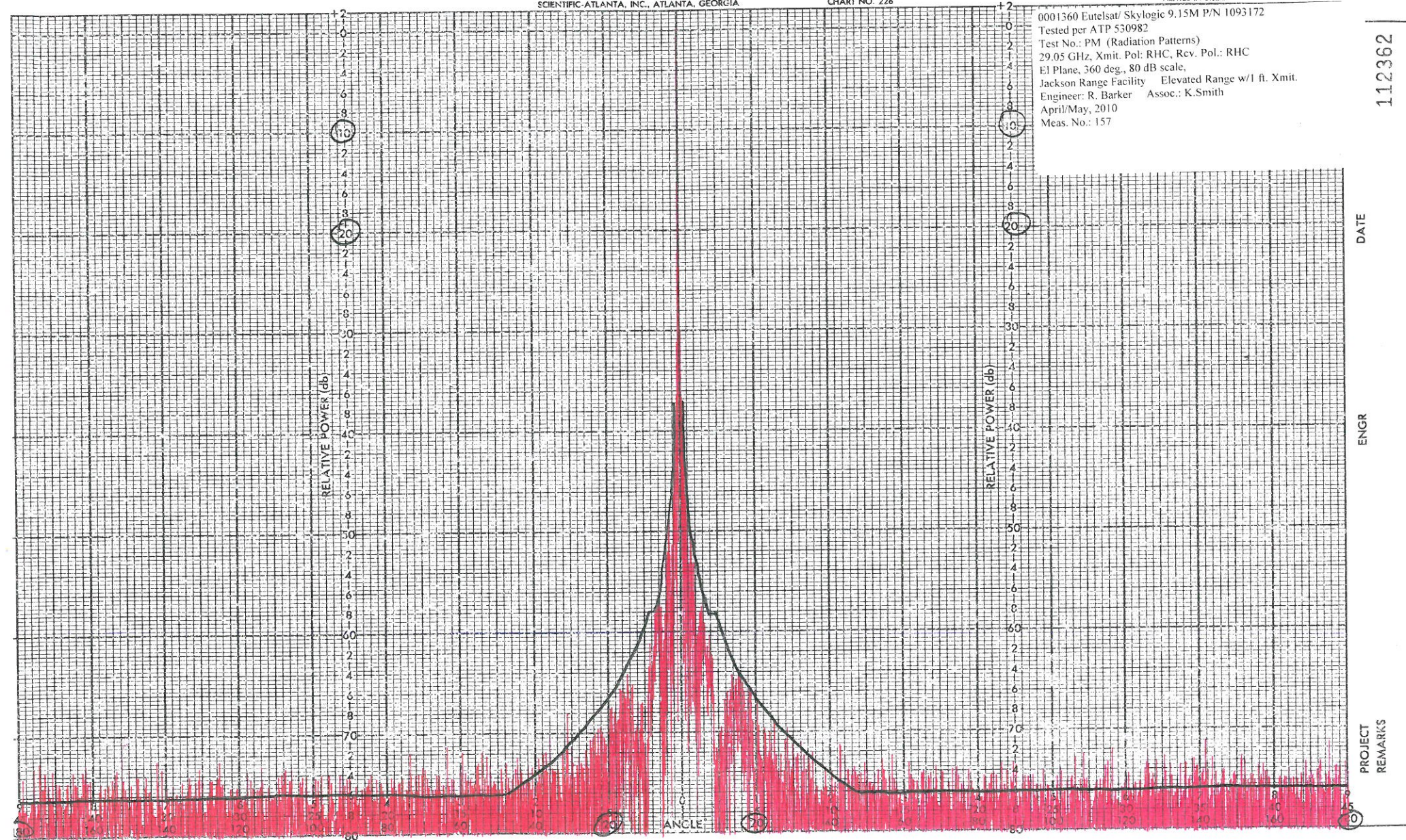
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PROJECT  
REMARKS

RELATIVE POWER (db)

RELATIVE POWER (db)

ANGLE





0001360 Eutelsat/ Skylogix 9.15M P/N 1093172

Tested per ATP 530982

Test No.: PM (Radiation Patterns)

30.00 GHz, Xmit. Pol: RHC, Rev. Pol.: RHC

E1 Plane, 9 deg., 80 dB scale,

Jackson Range Facility Elevated Range w/1 ft. Xmit.

Engineer: R. Barker Assoc.: K. Smith

April/May, 2010

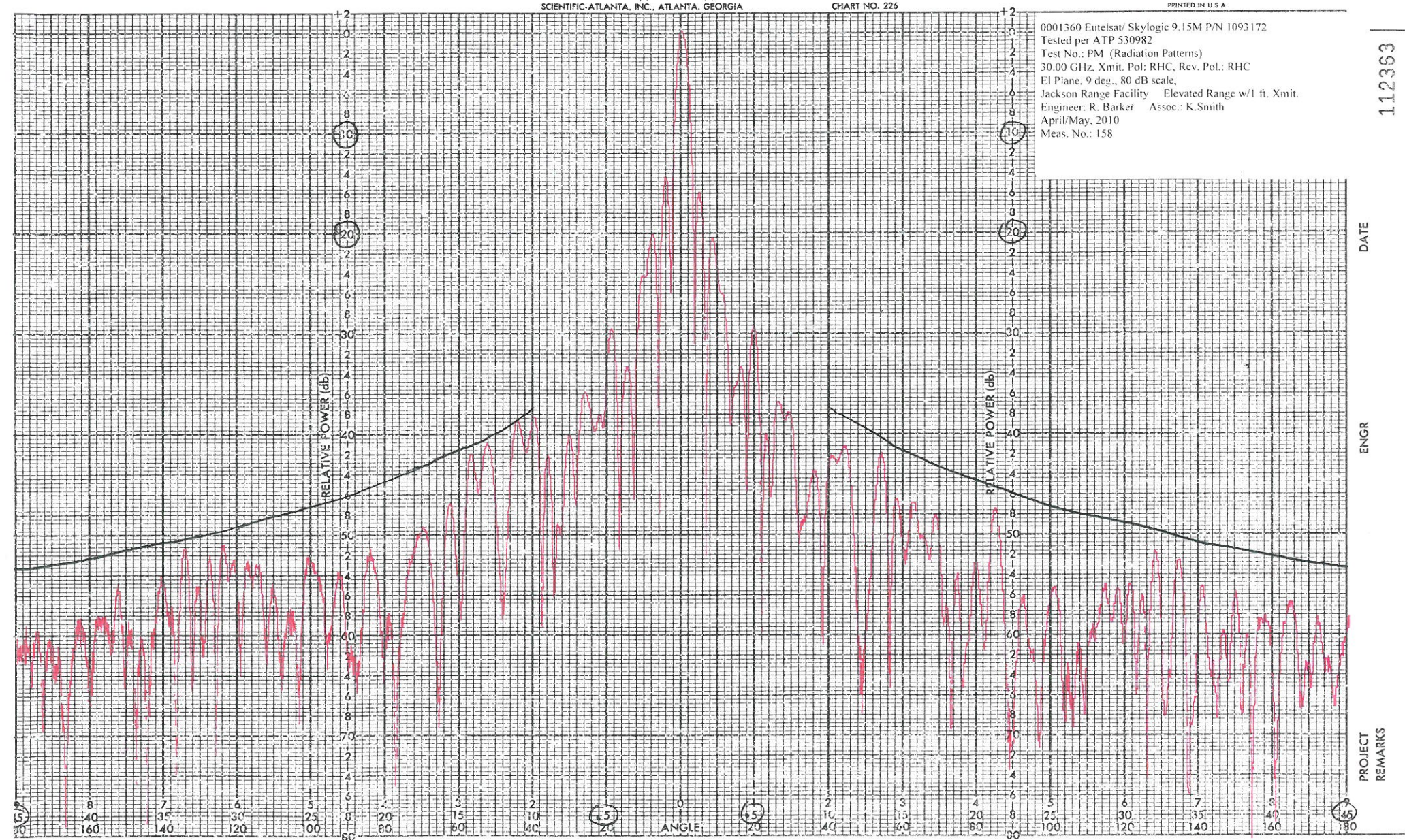
Meas. No.: 158

DATE

ENGR

PROJECT  
REMARKS

112363





0001360 Eutelsat/ Skylogic 9.15M P/N 1093172  
Tested per ATP 530982  
Test No.: PM (Radiation Patterns)  
30.00 GHz, Xmit. Pol: RHC, Rev. Pol.: RHC  
EI Plane, 90 deg., 80 dB scale,  
Jackson Range Facility Elevated Range w/1 ft. Xmit.  
Engineer: R. Barker Assoc.: K. Smith  
April/May, 2010  
Meas. No.: 159

112365

DATE

ENGR

PROJECT  
REMARKS

RELATIVE POWER (dB)

RELATIVE POWER (dB)

ANGLE



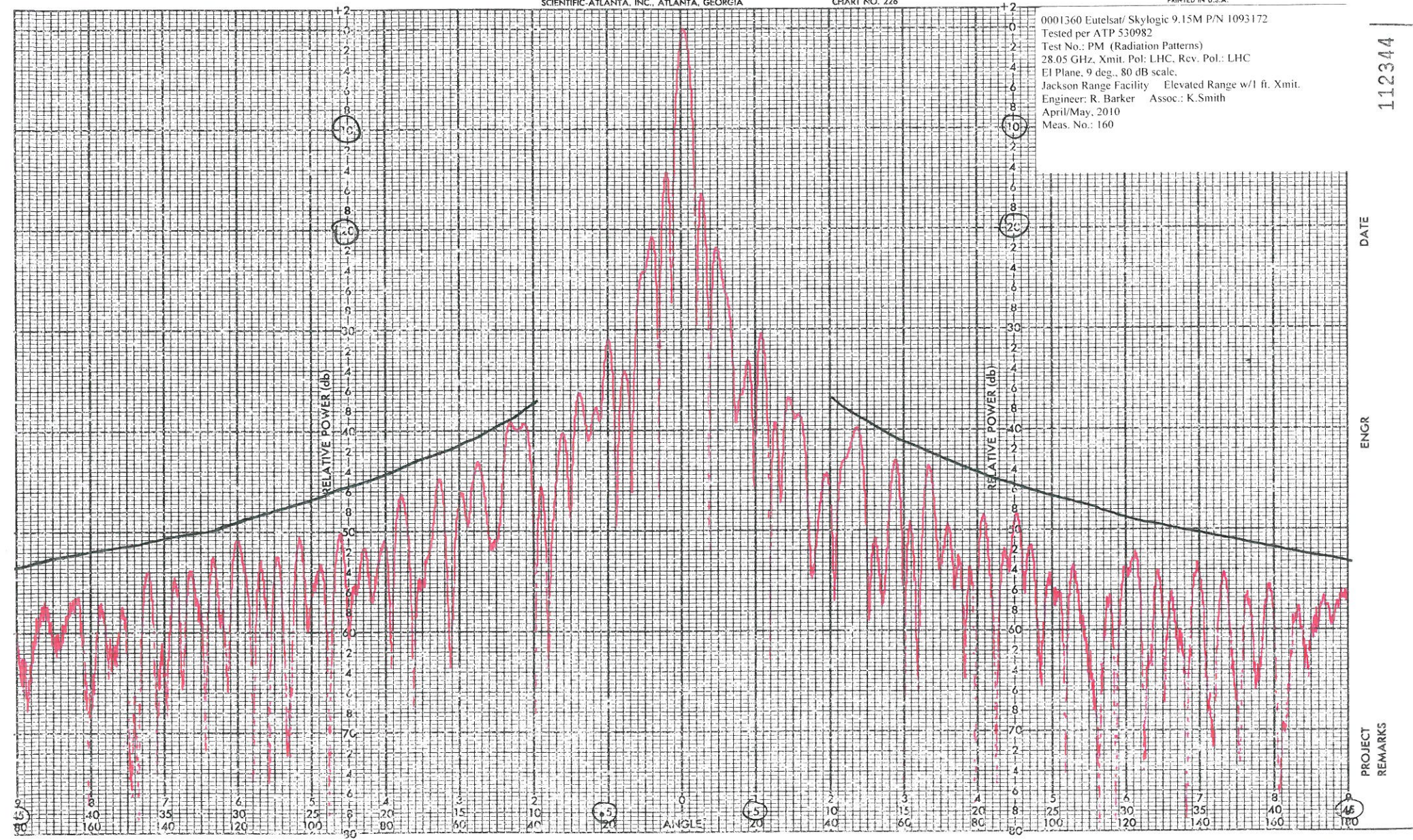
0001360 Eutelsat/ Skylogic 9.15M P/N 1093172  
 Tested per ATP 530982  
 Test No.: PM (Radiation Patterns)  
 28.05 GHz, Xmit. Pol: LHC, Rcv. Pol.: LHC  
 El Plane, 9 deg., 80 dB scale,  
 Jackson Range Facility Elevated Range w/1 ft. Xmit.  
 Engineer: R. Barker Assoc.: K.Smith  
 April/May, 2010  
 Meas. No.: 160

112344

DATE

ENGR

PROJECT  
REMARKS





0001360 Eutelsat/ Skylogic 9.15M P/N 1093172

Tested per ATP 530982

Test No.: PM (Radiation Patterns)

28.05 GHz, Xmit. Pol: LHC, Rev. Pol.: LHC

E Plane, 90 deg., 80 dB scale,

Jackson Range Facility Elevated Range w/1 ft. Xmit.

Engineer: R. Barker Assoc.: K. Smith

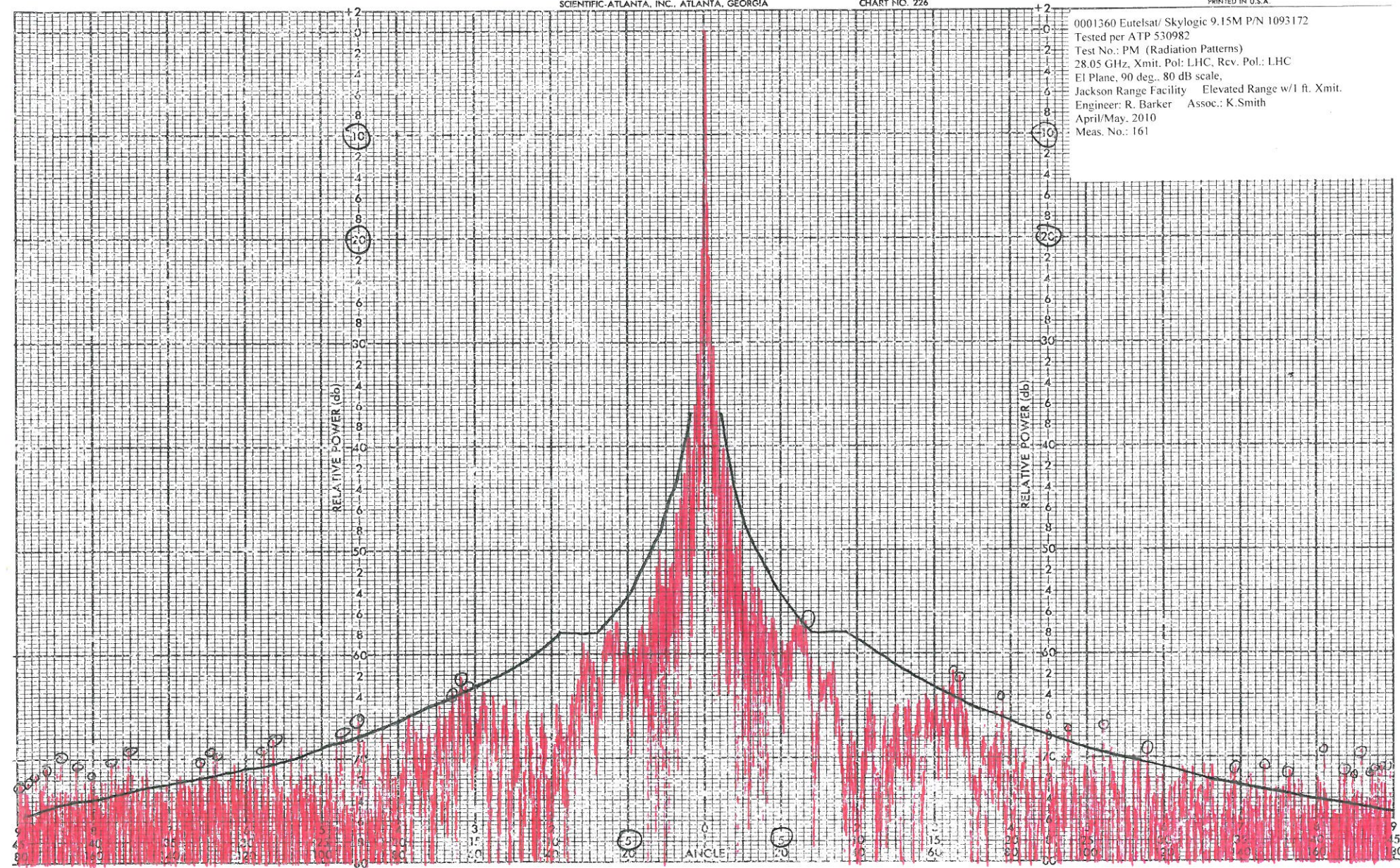
April/May, 2010

Meas. No.: 161

112345

DATE

ENGR

PROJECT  
REMARKS



0001360 Eutelsat/ Skylogic 9.15M P/N 1093172

Tested per ATP 530982

Test No.: PM (Radiation Patterns)

29.05 GHz, Xmit. Pol: LHC, Rev. Pol.: LHC

E1 Plane, 90 deg., 80 dB scale.

Jackson Range Facility Elevated Range w/1 ft. Xmit.

Engineer: R. Barker Assoc.: K. Smith

April/May, 2010

Meas. No.: 162

112342

DATE

ENGR

PROJECT  
REMARKS

RELATIVE POWER (db)

RELATIVE POWER (db)

ANGLE

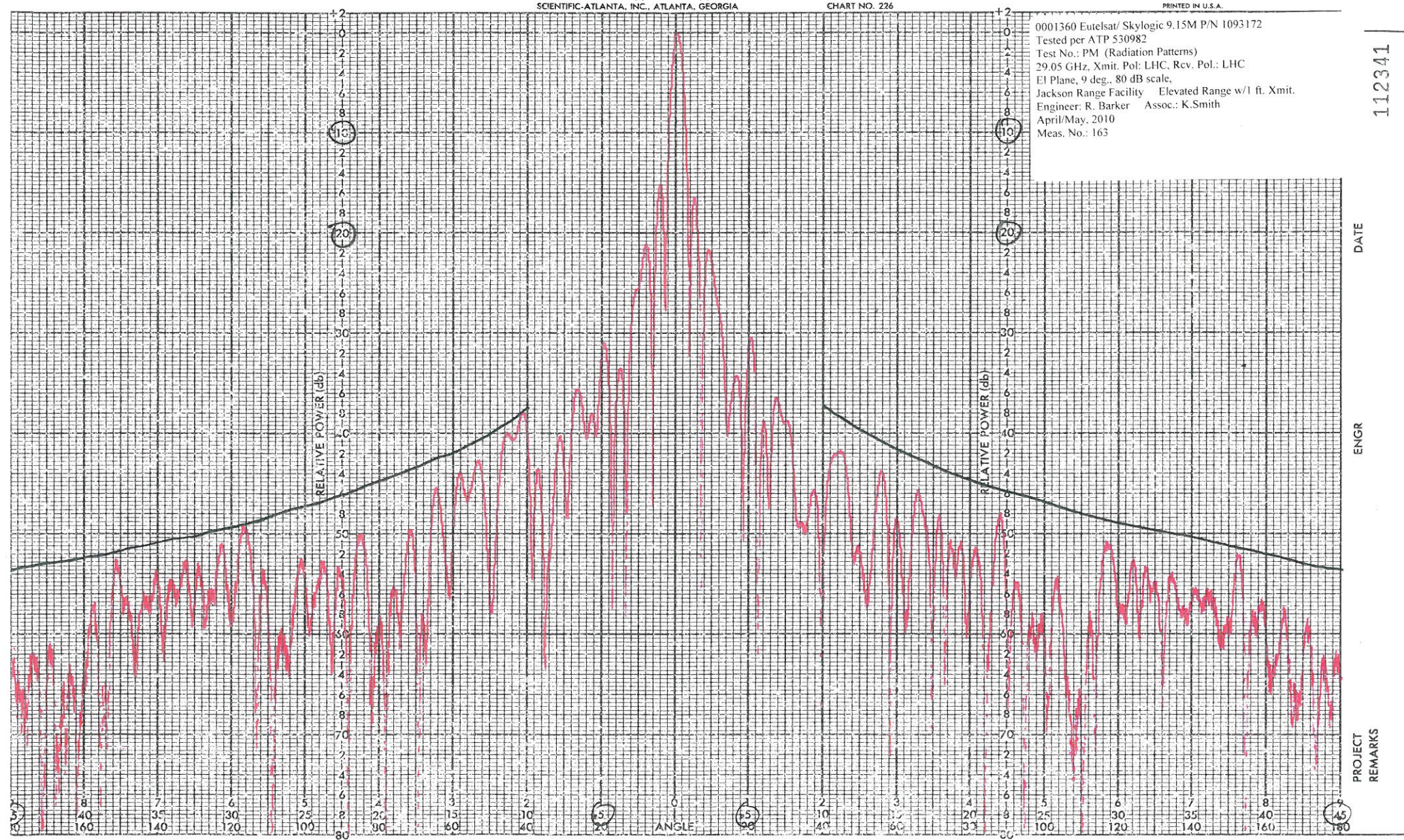


0001360 Eutelsat/ Skylogix 9.15M P/N 1093172  
Tested per ATP 530982  
Test No.: PM (Radiation Patterns)  
29.05 GHz, Xmit. Pol: LHC, Rev. Pol.: LHC  
EI Plane, 9 deg., 80 dB scale,  
Jackson Range Facility Elevated Range w/1 ft. Xmit.  
Engineer: R. Barker Assoc.: K. Smith  
April/May, 2010  
Meas. No.: 163

112341

DATE

ENGR

PROJECT  
REMARKS



0001360 Eutelsat/ Skylogic 9.15M P/N 1093172  
Tested per ATP 530982  
Test No.: PM (Radiation Patterns)  
29.05 GHz, Xmit. Pol: LHC, Rev. Pol.: LHC  
E1 Plane, 360 deg., 80 dB scale,  
Jackson Range Facility Elevated Range w/1 ft. Xmit.  
Engineer: R. Barker Assoc.: K. Smith  
April/May, 2010  
Meas. No.: 164

112343

DATE

ENGR

PROJECT  
REMARKS

RELATIVE POWER (db)

RELATIVE POWER (db)

ANGLE



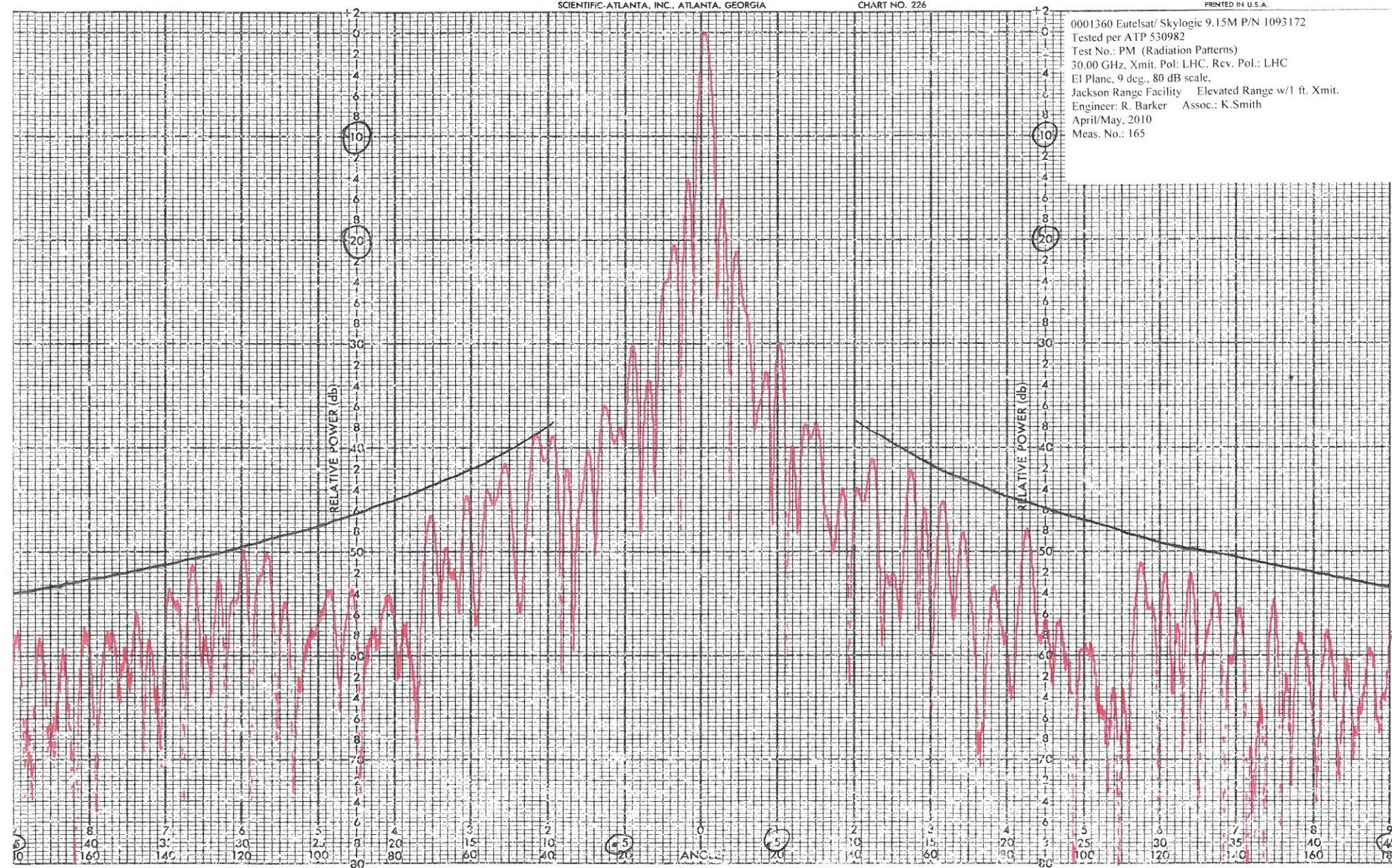
0001360 Eutelsat/ Skylogic 9.15M P/N 1093172  
 Tested per ATP 530982  
 Test No.: PM (Radiation Patterns)  
 30.00 GHz, Xmit. Pol: LHC, Rcv. Pol.: LHC  
 El Plane, 9 deg., 80 dB scale,  
 Jackson Range Facility Elevated Range w/1 ft. Xmit.  
 Engineer: R. Barker Assoc.: K. Smith  
 April/May, 2010  
 Meas. No.: 165

112338

DATE

ENGR

PROJECT  
REMARKS





0001360 Eutelsat/ Skylogix 9.15M P/N 1093172

Tested per ATP 530982

Test No.: PM (Radiation Patterns)

30.00 GHz, Xmit. Pol: LHC, Rev. Pol.: LHC

El Plane, 90 deg., 80 dB scale.

Jackson Range Facility Elevated Range w/1 ft. Xmit.

Engineer: R. Barker Assoc.: K. Smith

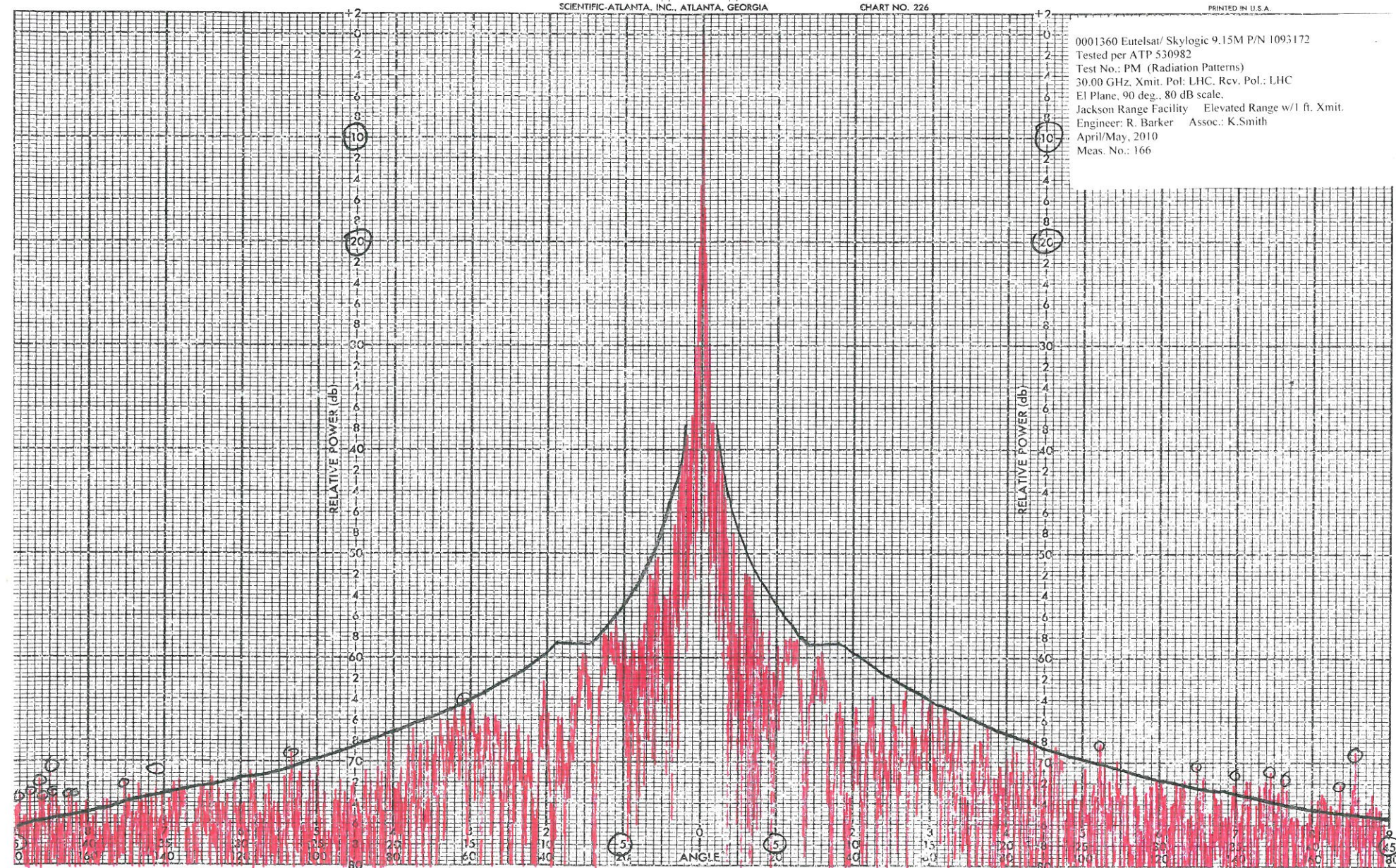
April/May, 2010

Meas. No.: 166

112340

DATE

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PROJECT  
REMARKS

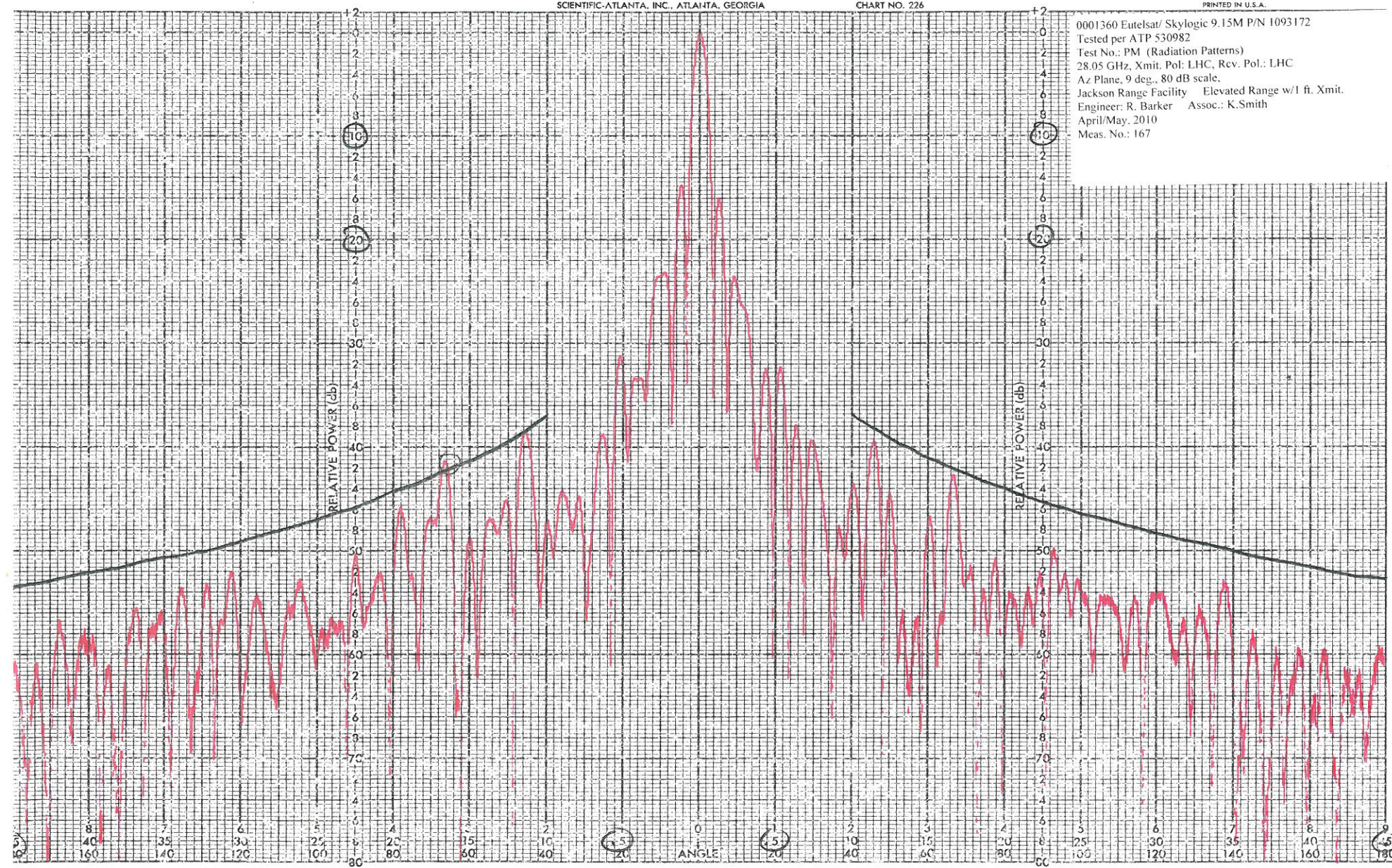


0001360 Eutelsat/ Skylogic 9.15M P/N 1093172  
Tested per ATP 530982  
Test No.: PM (Radiation Patterns)  
28.05 GHz, Xmit. Pol: LHC, Rev. Pol.: LHC  
Az Plane, 9 deg., 80 dB scale.  
Jackson Range Facility Elevated Range w/1 ft. Xmit.  
Engineer: R. Barker Assoc.: K. Smith  
April/May, 2010  
Meas. No.: 167

112329

DATE

ENGR

PROJECT  
REMARKS



0001360 Eutelsat/ Skylog 9.15M P/N 1093172

Tested per ATP 530982

Test No.: PM (Radiation Patterns)

28.05 GHz, Xmit. Pol: LHC, Rev. Pol.: LHC

Az Plane, 90 deg., 80 dB scale.

Jackson Range Facility Elevated Range w/1 ft. Xmit.

Engineer: R. Barker Assoc.: K. Smith

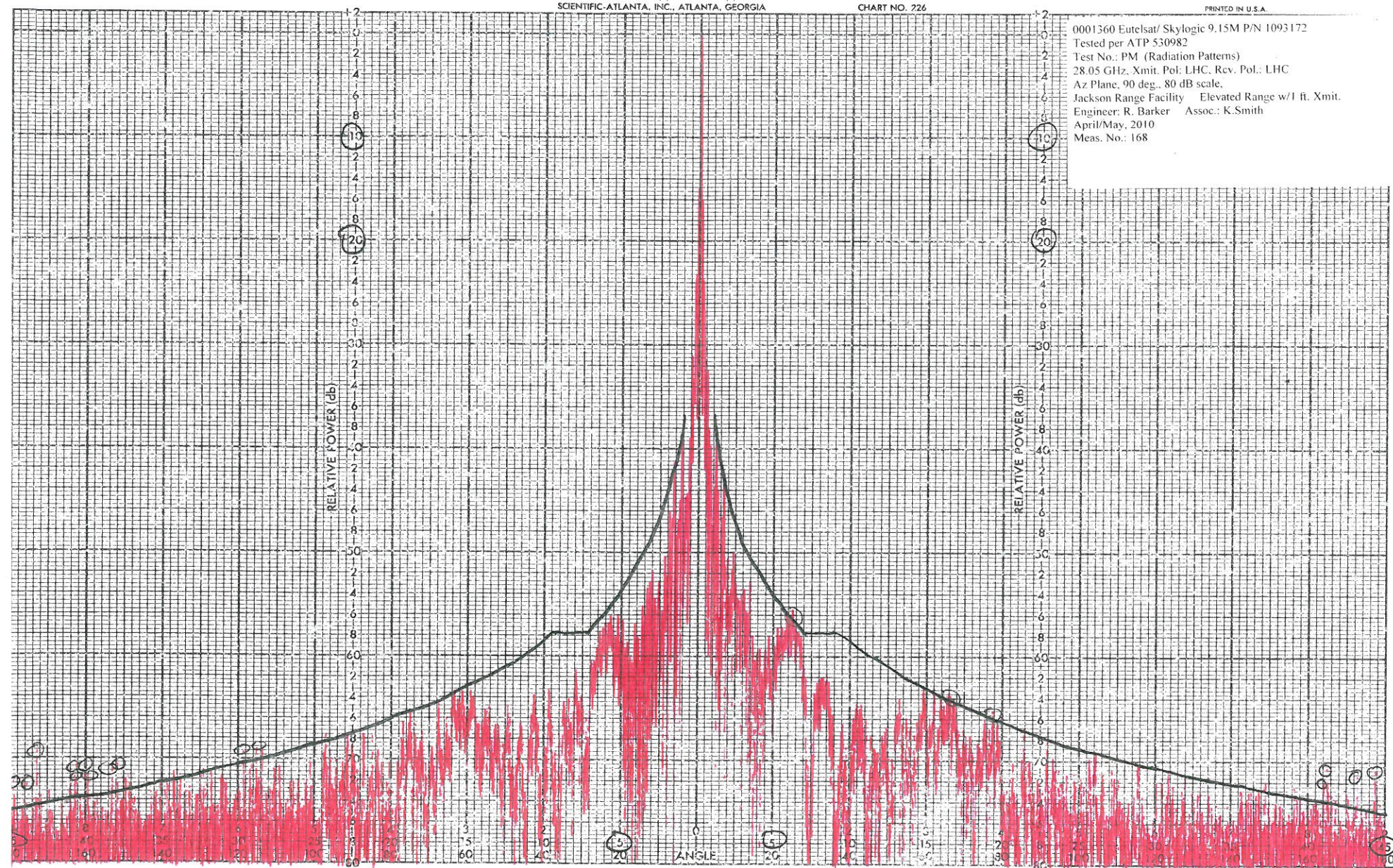
April/May, 2010

Meas. No.: 168

112330

DATE

ENGR

PROJECT  
REMARKS

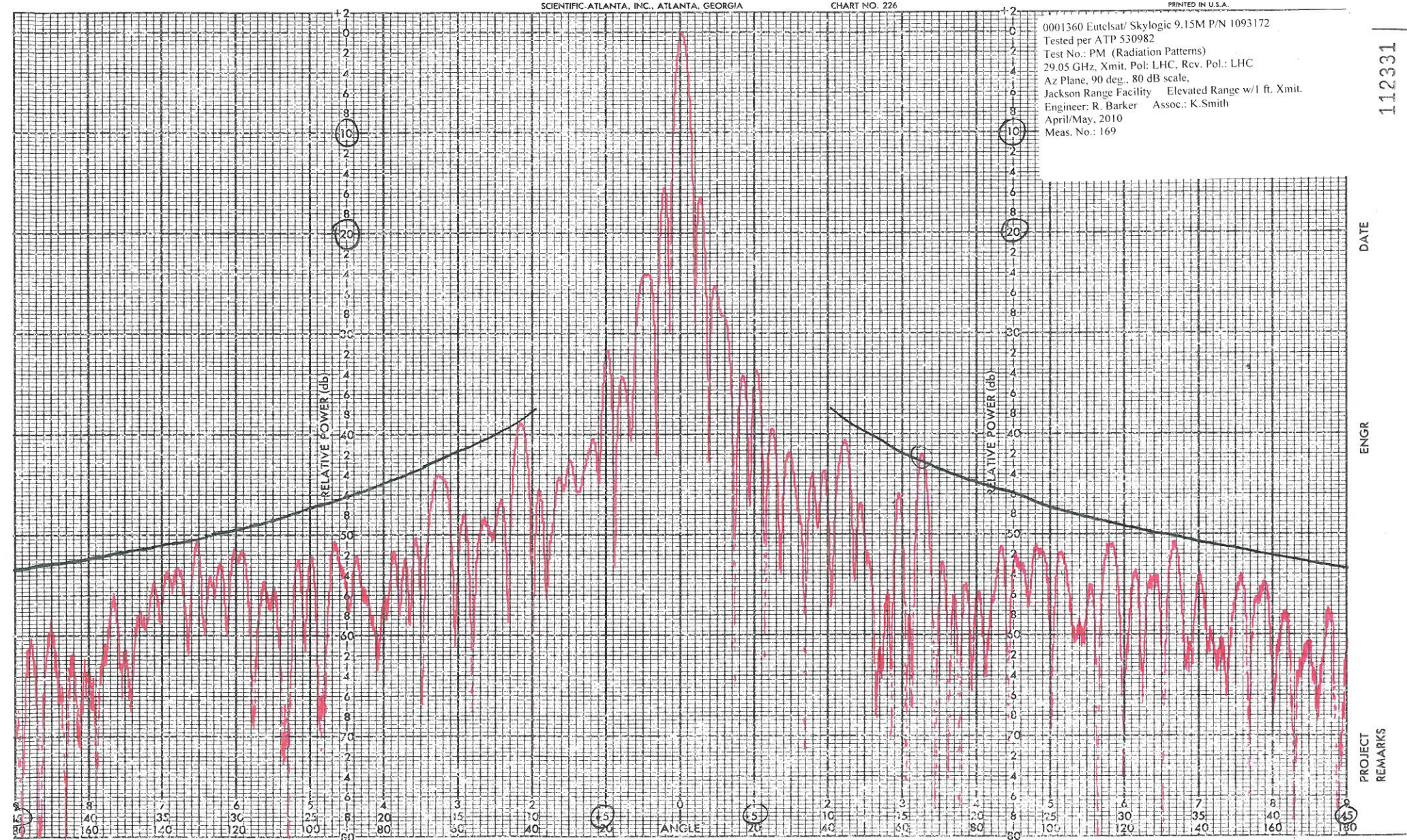


0001360 Eutelsat/ Skylogic 9.15M P/N 1093172  
Tested per ATP 530982  
Test No.: PM (Radiation Patterns)  
29.05 GHz, Xmit. Pol: LHC, Rcv. Pol.: LHC  
Az Plane, 90 deg., 80 dB scale,  
Jackson Range Facility Elevated Range w/1 ft. Xmit.  
Engineer: R. Barker Assoc.: K. Smith  
April/May, 2010  
Meas. No.: 169

112331

DATE

ENGR

PROJECT  
REMARKS

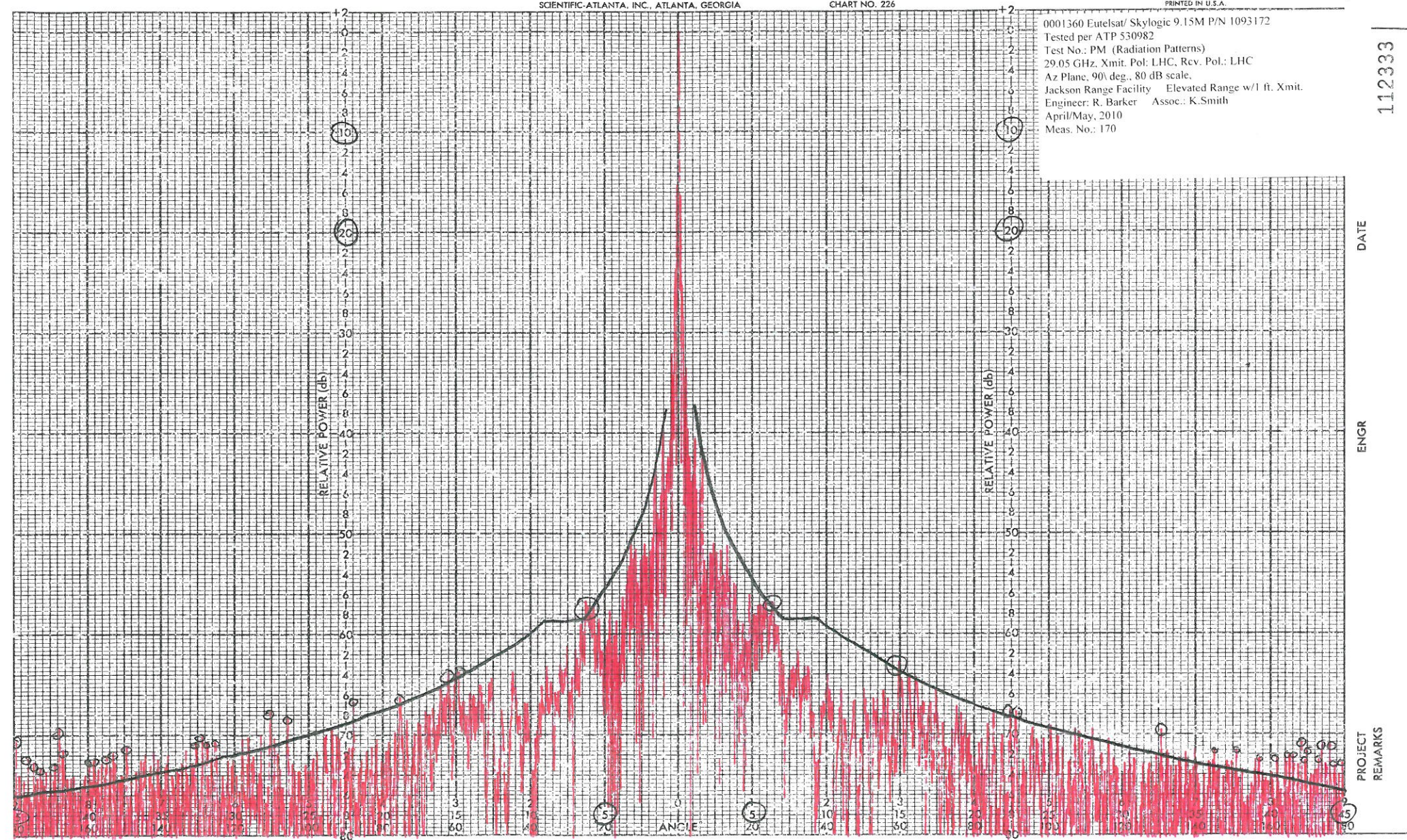


0001360 Eutelsat/ Skylogic 9.15M P/N 1093172  
Tested per ATP 530982  
Test No.: PM (Radiation Patterns)  
29.05 GHz. Xmit. Pol.: LHC, Rcv. Pol.: LHC  
Az Plane, 90 deg., 80 dB scale.  
Jackson Range Facility Elevated Range w/1 ft. Xmit.  
Engineer: R. Barker Assoc.: K. Smith  
April/May, 2010  
Meas. No.: 170

112333

DATE

ENGR

PROJECT  
REMARKS



0001360 Eutelsat/ Skylogic 9.15M P/N 1093172  
 Tested per ATP 530982  
 Test No.: PM (Radiation Patterns)  
 29.05 GHz, Xmit. Pol: LHC, Rev. Pol.: LHC  
 Az Plane, 360 deg., 80 dB scale.  
 Jackson Range Facility Elevated Range w/1 ft. Xmit.  
 Engineer: R. Barker Assoc.: K. Smith  
 April/May, 2010  
 Meas. No.: 171

112334

DATE

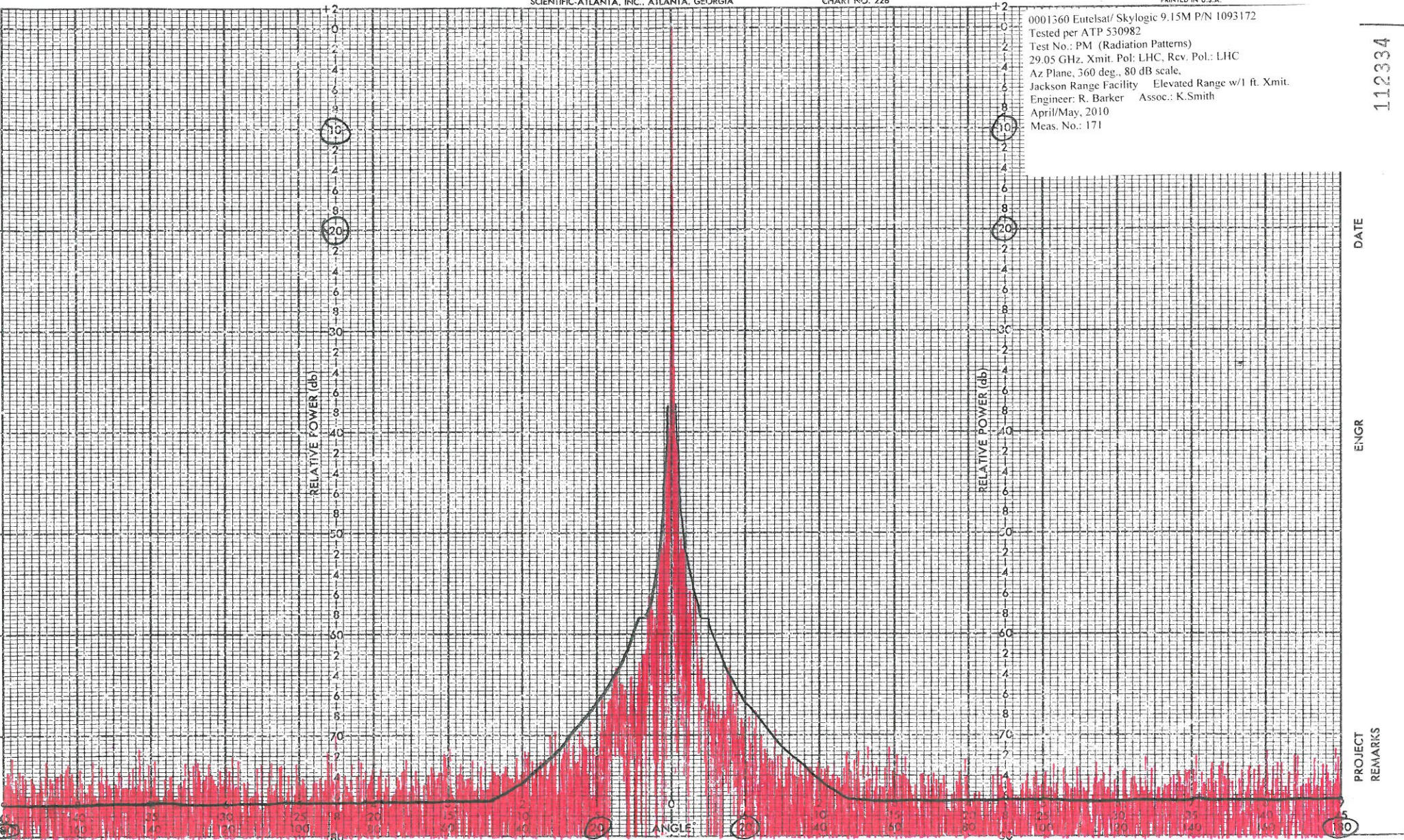
ENGR

PROJECT  
REMARKS

RELATIVE POWER (db)

RELATIVE POWER (db)

ANGLE



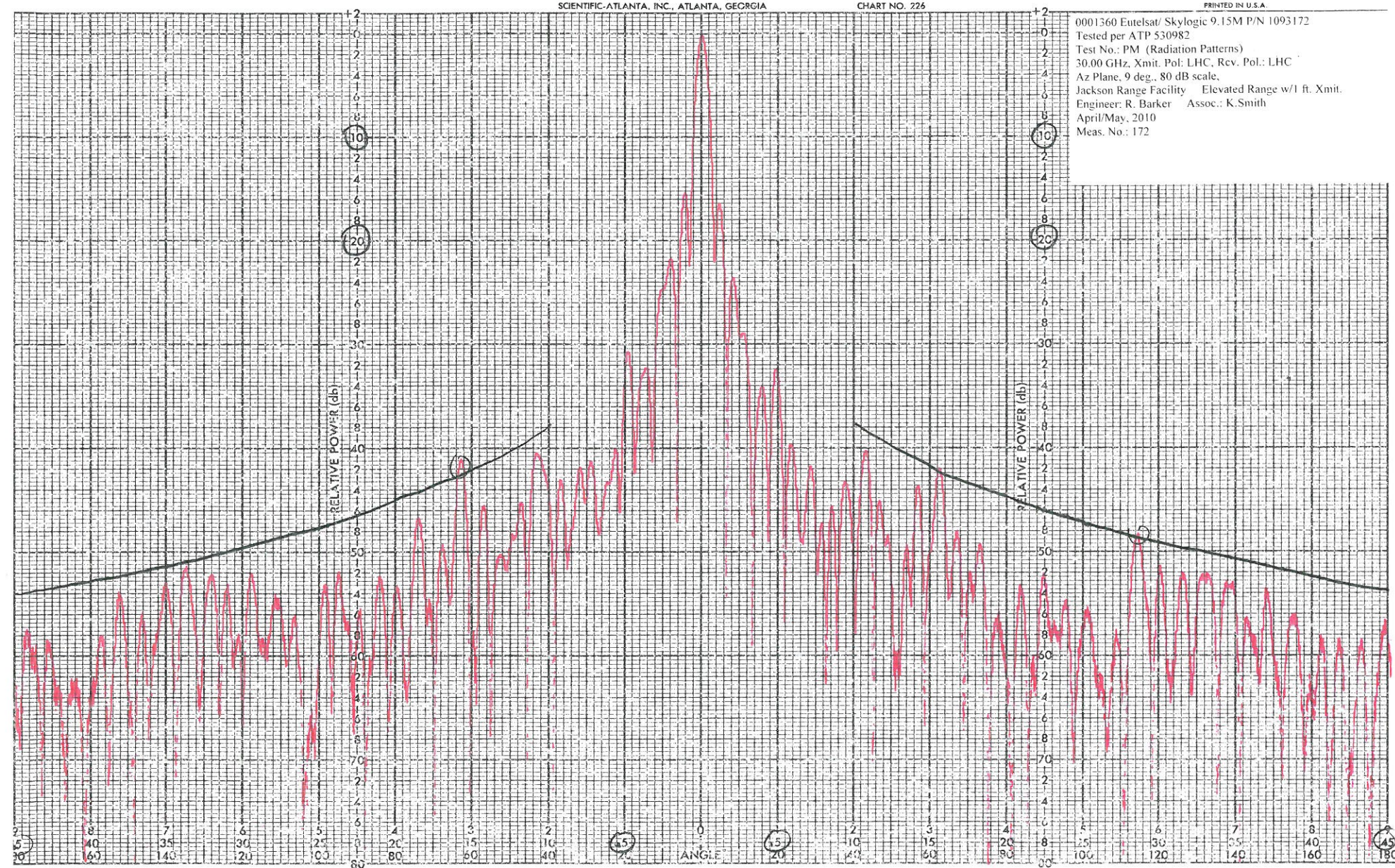


0001560 Eutelsat/ Skylogix 9.15M P/N 1093172  
Tested per ATP 530982  
Test No.: PM (Radiation Patterns)  
30.00 GHz, Xmit. Pol.: LHC, Rev. Pol.: LHC  
Az Plane, 9 deg., 80 dB scale,  
Jackson Range Facility Elevated Range w/1 ft. Xmit.  
Engineer: R. Barker Assoc.: K. Smith  
April/May, 2010  
Meas. No.: 172

112335

DATE

ENGR

PROJECT  
REMARKS



0001360 Eutelsat/ Skylogic 9.15M P/N 1093172  
Tested per ATP 530982  
Test No.: PM (Radiation Patterns)  
30.00 GHz, Xmit. Pol: LHC, Rev. Pol.: LHC  
Az Plane, 90 deg., 80 dB scale,  
Jackson Range Facility Elevated Range w/1 ft. Xmit.  
Engineer: R. Barker Assoc.: K. Smith  
April/May, 2010  
Meas. No.: 173

112337

DATE

ENGR

PROJECT  
REMARKS

RELATIVE POWER (db)

RELATIVE POWER (db)

ANGLE

